



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200
Fax 613 632-5246

650.6316

Job Sheet 210875



Part No: 650.6316

Job Qty: 2 pcs

Part Name: Swivel Fitting



Part Weight: 0 lbs

Status: New

Priority: Medium

Job Created: 6/25/20

Job Tracking No:

Due Date: 7/9/20

Created By: Jennifer Renwick

Type: SOLD

Description:

Note: DWG 650.6300 REV.PG2 IPP REV:A NEW ISSUE 15.03.19 JLM VERIFIED BY:DD

Ship Via:

AW139 Valve

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup Hrs	Run Hrs	Workcenter / Supplier	Lead Time	
110	Doosan - 1	2 pcs	7/2/20		1.00	1.00	Doosan - 1		
							NLX 2500SY - 1		
							SL-154 - 1		
							SL-2500Y - 1		
120	QC 2	2 pcs	7/2/20		0.00	0.00	QC 2 - 1		JL 20-713
							QC 2 - 12		
							QC 2 - 14		
							QC 2 - 17		
							QC 2 - 19		
							QC 2 - 2		
							QC 2 - 20		
							QC 2 - 22		
							QC 2 - 23		
							QC 2 - 25		
							QC 2 - 32		
							QC 2 - 33		
							QC 2 - 35		
							QC 2 - 39		
							QC 2 - 4		
							QC 2 - 40		
							QC 2 - 44		
							QC 2 - 45		
							QC 2 - 48		
							QC 2 - 49		
							QC 2 - 50		
							QC 2 - 51		
							QC 2 - 52		
							QC 2 - 57		
							QC 2 - 62		
							QC 2 - 63		
							QC 2 - 8		

1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
CANADA
TEL: 1 613 632-5200
Email: sales@dartaero.com
www.dartaero.com



Container No: S287349

Part: 650.6316

Job No: 210875

Serial No/Batch: S287349

Revision: REV.PG2

Inspector:

Exp Date:

Instructions:

Date: 07/13/20

Plex 6/25/20 8:37 AM Dart.Renwick.Jennifer

AMIA 1920

AMIA 1920

130	QC 8	2 pcs	7/2/20	0.00 0.00	QC 2 - 66	
					QC 2 - 64	
					QC 8 - 12	
					QC 8 - 14	20/07/24
					QC 8 - 17	
					QC 8 - 20	
					QC 8 - 25	
					QC 8 - 3	
					QC 8 - 32	
					QC 8 - 33	
					QC 8 - 35	
					QC 8 - 39	
					QC 8 - 4	
					QC 8 - 44	
					QC 8 - 45	
					QC 8 - 49	
					QC 8 - 58	
					QC 8 - 8	
					QC 8 - 9	
					QC 8 - 68	
					QC 8 - 67	
					QC 8 - 1 (A)	
					QC 8 - 47	
					QC 8 - 40	
					QC 8 - 76	
140	Outsource - 17 - Passivate	2 pcs	7/9/20		GRO002-VC	5 2020-07-27
150	Packaging 2-1 - Receive - B4B	2 pcs	7/9/20	0.00 0.00	Packaging 2 - 1 - B4B	
					Packaging 2 - 2 - B4B	
					Packaging 2 - 3 - B4B	
					Packaging 2 - 5 - B4B	JUL 30 2020
					Packaging 2 - 4 - B4B	
					Packaging 2 - 6 - B4B	
					Packaging 2 - 7 - B4B	
					Packaging 2 - 8 - B4B	
					Packaging 2 - 9 - B4B	
					Packaging 2 - 10 - B4B	
					Packaging 2 - 11 - B4B	
					Packaging 2 - 12 - B4B	
					Packaging 2 - 13 - B4B	
					Packaging 2 - 14 - B4B	
					Packaging 2 - 15 - B4B	
					Packaging 2 - 16 - B4B	
					Packaging 2 - 17 - B4B	
					Packaging 2 - 18 - B4B	
					Packaging 2 - 19 - B4B	
					Packaging 2 - 20 - B4B	
					Packaging 2 - 21 - B4B	
					Packaging 2 - 22 - B4B	
					Packaging 2 - 23 - B4B	
					Packaging 2 - 24 - B4B	
					Packaging 2 - 25 - B4B	
					Packaging 2 - 26 - B4B	
					Packaging 2 - 27 - B4B	
					Packaging 2 - 28 - B4B	
					Packaging 2 - 29 - B4B	
					Packaging 2 - 30 - B4B	
					Packaging 2 - 31 - B4B	
					Packaging 2 - 32 - B4B	
					Packaging 2 - 33 - B4B	

160 QC 6	2 pcs	7/9/20	0.00 0.00	Packaging 2 - 34 - B4B	
				Packaging 2 - 35 - B4B	
				Packaging 2 - 36 - B4B	
				Packaging 2 - 37 - B4B	
				QC 6 - 9	
				QC 6 - 68	
				QC 6 - 61	DAS
				QC 6 - 40	82
				QC 6 - 81	9-89
				QC 6 - 82	AUG 2 8 2020
				Packaging 3 - 1 - B4B	
				Packaging 3 - 2 - B4B	
180 Packaging 3-1 - Stock - B4B	2 pcs	7/9/20	0.00 0.00	Packaging 3 - 3 - B4B	
				Packaging 3 - 4 - B4B	
				Packaging 3 - 5 - B4B	
				Packaging 3 - 6 - B4B	
				Packaging 3 - 7 - B4B	
				Packaging 3 - 8 - B4B	
				Packaging 3 - 9 - B4B	
				Packaging 3 - 10 - B4B	
				Packaging 3 - 11 - B4B	
				Packaging 3 - 12 - B4B	DAS
				Packaging 3 - 13 - B4B	82
				Packaging 3 - 14 - B4B	9-89
				Packaging 3 - 15 - B4B	AUG 2 8 2020
				Packaging 3 - 16 - B4B	
				Packaging 3 - 17 - B4B	
				Packaging 3 - 18 - B4B	
				Packaging 3 - 19 - B4B	
				Packaging 3 - 20 - B4B	
				Packaging 3 - 21 - B4B	
				Packaging 3 - 22 - B4B	
				Packaging 3 - 23 - B4B	
				Packaging 3 - 24 - B4B	
				Packaging 3 - 25 - B4B	
				Packaging 3 - 26 - B4B	
				Packaging 3 - 27 - B4B	
				Packaging 3 - 28 - B4B	
				Packaging 3 - 29 - B4B	
				Packaging 3 - 30 - B4B	
				Packaging 3 - 31 - B4B	
				Packaging 3 - 32 - B4B	
				Packaging 3 - 33 - B4B	
				Packaging 3 - 34 - B4B	
				Packaging 3 - 35 - B4B	
				Packaging 3 - 36 - B4B	
190 QC 21 - SA	2 pcs	7/9/20	0.00 0.00	QC 21 - SA - 21	
				QC 21 - SA - 70	

Part Op 110 - 1-Turn as per Folio FB377 Dwg Rev: _____

Descriptions: 120 - (QC2- Inspect parts off machine FAI/FAIB)

130 - (QC8- Inspect parts - second check)

140 - Issue P/O; 46796 PASSIVATE IAW QQ-P-35C, TYPE II -Material type; 17-4PH H900 stainless steel - Certificate of Conformity is required

150 - Receive & Inspect for Damage & Mat'l Certs

160 - QC6- All purchased or subcontracted products

180 - (Identify as per dwg & Stock Location: _____)

190 - (QC21- Final Inspection - Work Order Release)

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
M17-4-H900-R1.000	17-4 SS H900 Round Bar 1.00"	.3332 ft (.1666 ea)	110-Doosan - 1	<i>Box S207997</i>

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
110-Doosan - 1	M17-4-H900-R1.000	0	18	0

Part Specifications

Specifications could not be found.

Plex 6/25/20 8:37 AM Dart.Renwick.Jennifer

Entered: _____ Date: _____

WORK ORDER NON-CONFORMANCE / ROUTE UPDATE

NCR No. _____

Route update only ☐



DISPOSITION		DEPARTMENT/PROCESS			
Job: _____	Rework ☐ Scrap ☐ Use-as-is ☐	Skid-tube ☐ Machining ☐ Large Fab ☐	Cross tube ☐ Small Fab ☐ Finishing ☐	Eng. (Non-AW) ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐	Engineering ☐ Water Jet ☐ Supplier ☐ Quality ☐
Part No. _____					
Date: _____	Sequence #: _____	QTY Affected: _____		MRS (QS1042)	
Description Work Order Deviation		Disposition			
Completed By		Lead hand / Supervisor			
QC / QA Coordinator					
Root Cause		FAULT CATEGORY			
Operator ☐ Manufacturing Process ☐ Equip/Tooling ☐ Handling/Preservation ☐ Material ☐ Product Improvement ☐ Process Improvement ☐ Human Factors ☐		Pressure/Forced ☐ Bending ☐ Crushing ☐ Cracks ☐ Crimp/Kink/Ripple/Wave/Twist ☐ Marks/Chatter ☐ Mislabeled ☐ Other/Details: _____			
		Contamination ☐ Misaligned/off center ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Incomplete/Unclear Instructions ☐ Drill Holes ☐ Fit/Function ☐			
		Power Loss/Surge ☐ Folio/Program ☐ Grain Direction ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set/Set-up ☐			
		Positioned Wrong ☐ Outside Tolerance ☐ Drawing ☐ Finish ☐ Part Lost/Missing ☐ Misread ☐			

PAGE NO. 3 OF 6
COPY 4 AND IS OUT REFR-5-GM-AW-1 IN 6 CONTROL ID

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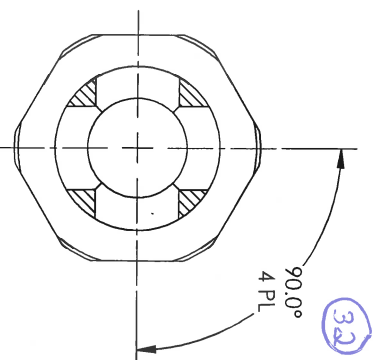
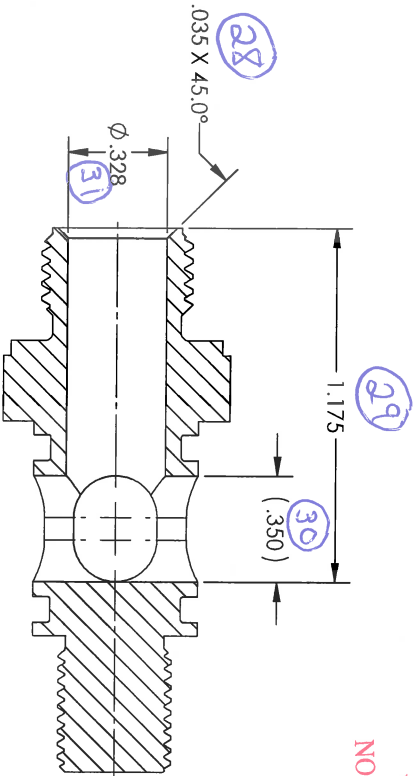


CART 3000 ENTERPRISE C.I. 3100 SUIRE 92001 W/ST 72A-5300 (740)-724-5300		THE CAGE CODE DWG. VOL. B 07/014 650,6300 PG.2		REV 11/07/11	
SWIVEL FITTING		A/CAL INDUSTRIES, INC. 4250 WEST ADELBERT ST. DALLAS, TEXAS 75244		UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: FRACTIONS DECIMALS .0005 .0005 .001 .001 .010 .010 .030 .030 .060 .060 .125 .125 .250 .250 .500 .500 1.000 1.000 2.000 2.000 3.000 3.000 4.000 4.000 5.000 5.000 6.000 6.000 7.000 7.000 8.000 8.000 9.000 9.000 10.000 10.000 11.000 11.000 12.000 12.000 13.000 13.000 14.000 14.000 15.000 15.000 16.000 16.000 17.000 17.000 18.000 18.000 19.000 19.000 20.000 20.000 21.000 21.000 22.000 22.000 23.000 23.000 24.000 24.000 25.000 25.000 26.000 26.000 27.000 27.000 28.000 28.000 29.000 29.000 30.000 30.000 31.000 31.000 32.000 32.000 33.000 33.000 34.000 34.000 35.000 35.000 36.000 36.000 37.000 37.000 38.000 38.000 39.000 39.000 40.000 40.000 41.000 41.000 42.000 42.000 43.000 43.000 44.000 44.000 45.000 45.000 46.000 46.000 47.000 47.000 48.000 48.000 49.000 49.000 50.000 50.000 51.000 51.000 52.000 52.000 53.000 53.000 54.000 54.000 55.000 55.000 56.000 56.000 57.000 57.000 58.000 58.000 59.000 59.000 60.000 60.000 61.000 61.000 62.000 62.000 63.000 63.000 64.000 64.000 65.000 65.000 66.000 66.000 67.000 67.000 68.000 68.000 69.000 69.000 70.000 70.000 71.000 71.000 72.000 72.000 73.000 73.000 74.000 74.000 75.000 75.000 76.000 76.000 77.000 77.000 78.000 78.000 79.000 79.000 80.000 80.000 81.000 81.000 82.000 82.000 83.000 83.000 84.000 84.000 85.000 85.000 86.000 86.000 87.000 87.000 88.000 88.000 89.000 89.000 90.000 90.000 91.000 91.000 92.000 92.000 93.000 93.000 94.000 94.000 95.000 95.000 96.000 96.000 97.000 97.000 98.000 98.000 99.000 99.000 100.000 100.000 101.000 101.000 102.000 102.000 103.000 103.000 104.000 104.000 105.000 105.000 106.000 106.000 107.000 107.000 108.000 108.000 109.000 109.000 110.000 110.000 111.000 111.000 112.000 112.000 113.000 113.000 114.000 114.000 115.000 115.000 116.000 116.000 117.000 117.000 118.000 118.000 119.000 119.000 120.000 120.000 121.000 121.000 122.000 122.000 123.000 123.000 124.000 124.000 125.000 125.000 126.000 126.000 127.000 127.000 128.000 128.000 129.000 129.000 130.000 130.000 131.000 131.000 132.000 132.000 133.000 133.000 134.000 134.000 135.000 135.000 136.000 136.000 137.000 137.000 138.000 138.000 139.000 139.000 140.000 140.000 141.000 141.000 142.000 142.000 143.000 143.000 144.000 144.000 145.000 145.000 146.000 146.000 147.000 147.000 148.000 148.000 149.000 149.000 150.000 150.000 151.000 151.000 152.000 152.000 153.000 153.000 154.000 154.000 155.000 155.000 156.000 156.000 157.000 157.000 158.000 158.000 159.000 159.000 160.000 160.000 161.000 161.000 162.000 162.000 163.000 163.000 164.000 164.000 165.000 165.000 166.000 166.000 167.000 167.000 168.000 168.000 169.000 169.000 170.000 170.000 171.000 171.000 172.000 172.000 173.000 173.000 174.000 174.000 175.000 175.000 176.000 176.000 177.000 177.000 178.000 178.000 179.000 179.000 180.000 180.000 181.000 181.000 182.000 182.000 183.000 183.000 184.000 184.000 185.000 185.000 186.000 186.000 187.000 187.000 188.000 188.000 189.000 189.000 190.000 190.000 191.000 191.000 192.000 192.000 193.000 193.000 194.000 194.000 195.000 195.000 196.000 196.000 	

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SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. _____



GENERAL NOTE		3000 ENTERPRISE CT.,	
DRAWN BY: 6426-2014		SUITE A, 92081	
CHECKED BY: 6426-2014		VISTA, CA 92081	
DRAWING APPROVAL:		(760)-724-5300	
P. 000001		AFRCAL INDUSTRIES, INC.	
CONTRACT NO.		AFRCAL INDUSTRIES, INC.	
UNLESS OTHERWISE SPECIFIED		SWIVEL FITTING	
DIMENSIONS ARE IN INCHES		THE CAGE CODE	
2 PLACE DECIMALS ±.005		B 07/1/16	
3 DECIMALS ±.008		DWG NO. 660.6300	
		SCALE NONE	
		REV. PG2	
		SHEET 12 OF 12	

THE 2005-2006 FACULTY HANDBOOK

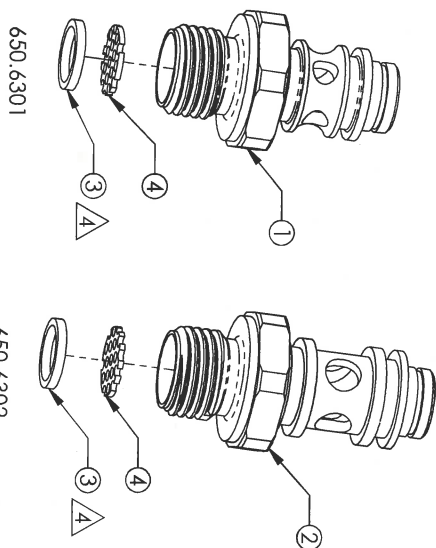
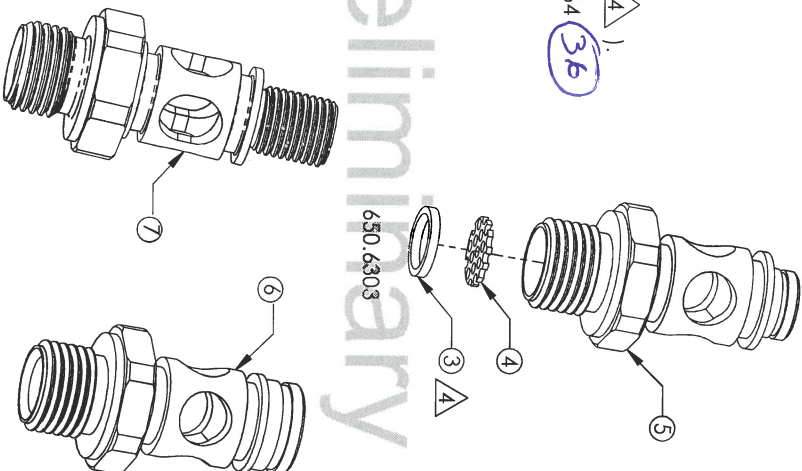
7

8

1. DEBURR AND BREAK ALL SHARP EDGES.

- 35

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REVISION		
REV.	DESCRIPTION	DATE
A	INCORPORATED IEC 04669	04-08-14
B	INCORPORATED IEC 04672	05-01-15
C	INCORPORATED IEC 04682	05-01-15
D	INCORPORATED IEC 04691.2	04-01-15
E	INCORPORATED IEC 04692 AND 04693	04-30-15
F	INCORPORATED IEC 05081	08-12-15
G	INCORPORATED IEC 05087	05-14-15
		P. BRAY

PROTOTYPE REVISIONS

ZONE	REV	DESCRIPTION	DATE	APPROVED
A4-1 B1-1		ADDED AMS 5643 AND ASTM A564 STANDARDS ADDED AMS 5643 AND ASTM A564 STANDARDS REMOVED ADDED DETAIL A ADDED DETAIL B		
B3-2 C1-2 C2-2 C3-2 D3-2 D4-2		DIMENSION WAS $\phi .440 \pm .005$ IS $\phi .426 \pm .002/- .003$ ADDED DETAIL B ADDED .002 DIMENSION ADDED $\phi .250 \pm .002 \times .105$ DIMENSION ADDED $\phi .075 \pm .015/- .000$ DIMENSION ADDED $.305 \pm .002/- .000$ DIMENSION ADDED MIN THREADED RELIEF CALLOUT		
A7-1 B3-1 B5-1 C3-1 C8-1 D3-1 D5-1 B2-1 B4-1 B4-12	PG1	DIMENSION WAS $\phi .440 \pm .005$ IS $\phi .426 \pm .002/- .003$ DIMENSION WAS R .405 IS $\phi .810$ ADDED DETAIL P ADDED $.075 \pm .015/- .000$ DIMENSION DIMENSION WAS $.050 \times .457 \times .215$ IS $.035 \times .450 \times .50$ DIMENSION WAS $.350$ IS $.350$	06/01/2020	T. CROSS
D7-2 B3-4 D3-4	PG2	ADDED ZONE CALLOUTS ADDED DETAIL E AND ZONE CALLOUT DIMENSION WAS $\phi .440 \pm .005$ IS $\phi .426 \pm .002/- .003$ ADDED $.075 \pm .015/- .000$ DIMENSION	06/15/2020	T. CROSS

LABOR	DATE	END #	PART #	DESCRIPTION	MATL	SPEC.
		7	650.6316	SWWEL FITTING	△	△
		6	650.6315	SWWEL FITTING	△	△
1		5	650.6314	SWWEL FITTING	△	△
1	1	4	650.6313	SCREEN	△	△
1	1	3	650.6312	SCREEN RETAINER	△	△
	1	2	650.6311	SWWEL FITTING	△	△
	1	1	650.6310	SWWEL FITTING	△	△
X			650.6303	SWWEL FITTING ASSY		
	X		650.6302	SWWEL FITTING ASSY		
	X		650.6301	SWWEL FITTING ASSY		

[illegible]

DART AEROSPACE LTD		Work Order: 210875
Description: Swivel Fitting		Part Number: 650-6316
Inspection Dwg: 650-6300	Rev: PG2	Page 1 of 1

INSPECTION SHEET

	Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
①	.430	$\pm .005$	.429	/		VERW	SL-2
②	.700	$\pm .005$	.700	/		--	--
③	1.000	$\pm .005$	1.003	/		--	--
④	.544	$+0 - .001$	.5436	/		mic	SL-09
⑤	3/8-24unf-3A						
	major ϕ : .3715	$\pm .0036$	.372	/		--	--
	m.d.w.: .3975	$\pm .0015$	.3975	/		--	--
	wires-.029						
⑥	.432	$+0 - .001$	.4315	/		LG	inspb
⑦	.013X45°	$\pm .01 \pm .5^\circ$	.013X45°	/		VERW	SL-2
⑧	.426	$+ .002 - .003$	.427	/		LG	inspb
⑨	1/2-20unf-3A						
	major ϕ : .496	$\pm .0041$	.496	/		mic	SL-09
	m.d.w.: .5096	$\pm .0016$	.510	/		--	--
	wires-.029						
⑩	R.010	$\pm .005$	R.008	/			
⑪	.085	$\pm .004$	.086	/		VERW	SL-2
⑫	.020	$\pm .005$	.020	/		--	--
⑬	.375	$\pm .005$	.375	/		--	--
⑭	.425	$\pm .005$	.425	/		--	--
⑮	.645	$\pm .005$	.646	/		H-G	
⑯	.690	$\pm .002$	.691	/		--	
⑰	.963	$\pm .005$	.968	/		--	
⑱	1.038	$\pm .005$	1.042	/		--	
⑲	1.225	$\pm .002$	1.225	/		H-G	
⑳	1.805	$\pm .002$	1.804	/		VERW	SL-2
㉑	R.1375	$\pm .005$	R.140	/			
㉒	.710	$\pm .005$	.710	/		VERW	SL-2
㉓	.075	$+ .015 - 0$	.078	/		--	--

DAS

32

9-89

Measured by: SL	Checked by: [Signature]	QC Inspector:
Date: 20-7-13	Date: 20/07/24	Date: AUG 28 2020

Engineering Approval: (If necessary)	Date:
--	--------------

Rev	Date	Change	Revised by	Approved
A	14.07.31	New Issue	KJ	

INSPECTION SHEET

DAS
82
9-89

9-89
AUG 28 2020

Date:

Revised by	Approved
K.J	

Mitutoyo Surtest SJ-400

DATE 2000-02-13
TIME 19:06:20

STAND JIS2001
PROFILE R
FILTER GAUSS
EVA-L 0.016in
N 5
 λ_c 0.003in
 λ_s 100 μ in
TILT-COMP. ALL
CURVE-CMP. OFF
M-SPEED 0.004in/s
R-SPEED 0.04in/s
AUTO-RTN ON
RANGE 32000 μ in
ON
 $\pm$ ESC
DRIVE ON
STYLUS STAND
PRE/POST ON

R-PROFILE

EVA-L 0.016in
 λ_c 0.003inX5

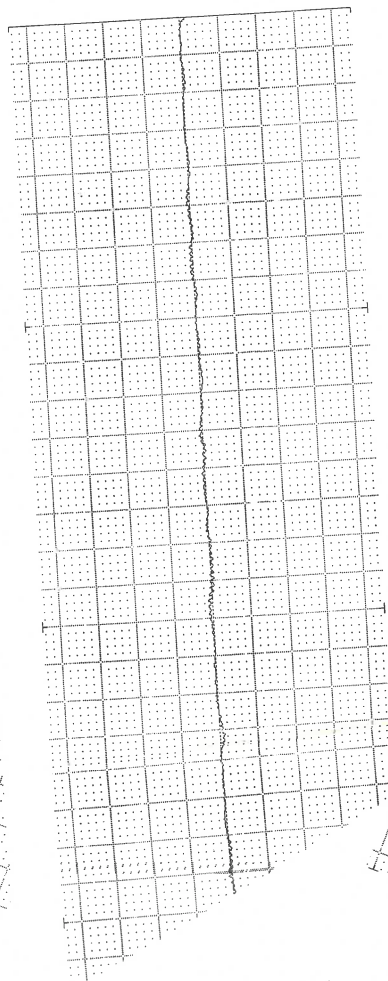
Ra 12.2 μ in
Rz 86 μ in
Rq 22.7 μ in

R-PROFILE

EVA-L 0.016in
 λ_c 0.003inX5

$\times$ 2K
 $\times$ 500

Ver. 500.000 μ in/in
Hor. 0.002in /in



Mitutoyo Surtest SJ-400

DATE 2000-02-13
TIME 18:59:53

STAND JIS2001
PROFILE R
FILTER GAUSS
EVA-L 0.016in
N 5
 λ_c 0.003in
 λ_s 100 μ in
TILT-COMP. ALL
CURVE-CMP. OFF
M-SPEED 0.004in/s
R-SPEED 0.04in/s
AUTO-RTN ON
RANGE 32000 μ in
ON
 $\pm$ ESC
DRIVE ON
STYLUS STAND
PRE/POST ON

R-PROFILE

EVA-L 0.016in
 λ_c 0.003inX5

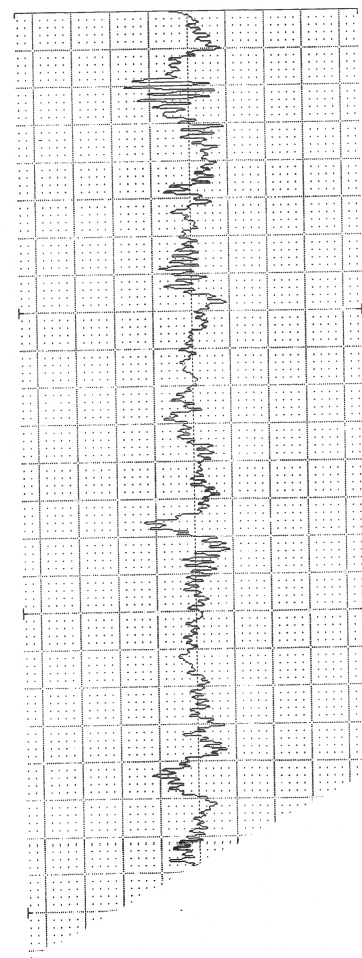
Ra 6.0 μ in
Rz 46 μ in
Rq 8.0 μ in

R-PROFILE

EVA-L 0.016in
 λ_c 0.003inX5

$\times$ 10K
 $\times$ 500

Ver. 100.000 μ in/in
Hor. 0.002in /in





Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER

POHB046796



Supplier: GRO002-VC
Group Altech
2455 Halpern
St Laurent
QC
H4S 1N9 Canada
Phone: 514-335-3666
Fax: 514-335-3868

Attention: Grenon, Sylvie

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

PO No: POHB046796

PO Date: 7/27/20

Due Date: 8/4/20

Purchase Order

Revision:

Revision Date:

Issued By: Guerin, Kimberley
Phone: 613-632-5200 Ext: 298
kguerin@dartaero.com

Via: Ground

Pymt Terms: Net 60

Freight Terms:

Special Comments:

E-MAILED
2020-07-28

Items

Line Item	Job	Part	Drawing	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
1	211477	650.6511	650.6500 REV.PB2	Fill Port Adapter -Issue P/O; PASSIVATE IAW QQ-P-35C, TYPE II -Material type; 303 stainless steel -Certificate of Conformity is required	Firmed X5	-	8/4/20	5 pcs	0 pcs	5 pcs	\$4.7619/pcs	\$23.81
2	210873	650.6213	650.6200 REV.PE1	Banjo -10 -Issue P/O; PASSIVATE IAW QQ-P-35C, TYPE II -Material type; 17-4PH H1150 stainless steel -Certificate of Conformity is required	Firmed X2	-	8/4/20	2 pcs	0 pcs	2 pcs	\$4.7619/pcs	\$9.52

Plex 7/28/20 1:48 PM Dart.Guerin.Kimberley



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER

POHB046796



Items

Line Item	Job	Part	Drawing	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
3	210872	650.6210	650.6200 REV.PE1	BANJO -4 -Issue P/O; PASSIVATE IAW QQ-P-35C, TYPE II -Material type; 17-4PH H1150 stainless steel -Certificate of Conformity is required	Firmed X3	-	8/4/20	3 pcs	0 pcs	3 pcs	\$4.7619/pcs	\$14.29
4	211168	650.6312	650.6300 REV.PG2	Screen Retainer -Issue P/O; PASSIVATE IAW QQ-P-35C, TYPE II -Material type; 17-4PH H900 stainless steel - Certificate of Conformity is required	Firmed X3	-	8/4/20	3 pcs	0 pcs	3 pcs	\$4.7619/pcs	\$14.29
5	210647	650.7711	650.7700 REV.PF1	Cap Retainer -Issue P/O; PASSIVATE IAW QQ-P-35C, TYPE II -Material type; 303 stainless steel -Certificate of Conformity is required	Firmed X3	-	8/4/20	3 pcs	0 pcs	3 pcs	\$4.7619/pcs	\$14.29



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER

POHB046796



Items

Line Item	Job	Part	Drawing	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
6	210875	650.6316	650.6300 REV.PG2	Swivel Fitting -Issue P/O; PASSIVATE IAW QQ-P-35C, TYPE II -Material type; 17-4PH H900 stainless steel - Certificate of Conformity is required	Firmed - x2	-	8/4/20	2 pcs	0 pcs	2 pcs	\$4.7619/pcs	\$9.52
7	211167	650.6310	650.6300 REV.PG2	Swivel Fitting -Issue P/O; PASSIVATE IAW QQ-P-35C, TYPE II -Material type; 17-4PH H900 stainless steel - Certificate of Conformity is required	Firmed - x3	-	8/4/20	3 pcs	0 pcs	3 pcs	\$4.7619/pcs	\$14.29
Grand Total:											\$100.00	

Order Notes

Procurement Quality Clauses
A005 right of entry
A012 chemical and physical test report
A016 personnel qualification
A017 raw material identification (as applicable)

A022 Apical Processing
A024 process certifications
A026 certification of material conformance

A041 quality management system
A042 dart notification by supplier
A043 retention of quality documents

A048 counterfeit parts avoidance, detection, mitigation and disposition program

A049 supplier awareness

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

Plex 7/28/20 1:48 PM Dart.Guerin.Kimberley



Certificat de Conformité / Certificate of Compliance



2455, Rue Halpern | Saint-Laurent | Québec | H4S 1N9
 Tel: 514-335-3666 Fax: 514-335-3868
 www.groupealtech.com

Bon de Livraison / Packing Slip

029869 - 1

Livré à / Ship to

DART AEROSPACE LTD
 1270 ABERDEEN STREET
 HAWKESBURY, ON, K6A1K7
 CANADA
 Tel.: 613-632-5200 Fax.:

Client / Customer:

DART AEROSPACE LTD
 1270 ABERDEEN STREET
 HAWKESBURY, ON, K6A1K7
 CANADA
 BUYER:

Date expédition Ship date		Créé Par Generated By	Transport / No de Compte Courier / Acc. No.	Bon de commande Client Customer Purchase Order No.					
28-Jul-2020		Ian Wilson		POHB046796					
#Ligne Line#	No. de Série / # Pièce Part Number / Line Item Details Job # / Ref #	Description pièce(s)	CATG. U/M	Comm. /Ordered	Exp/ Shipped	Qté NC/ NC Qty	Qté Scrap/	À venir/ Back Order	
1	650.6511 Rev.PB2	650.6511 01 - PASSIVATION-DICHROMATE [PASSIVATION BICHROMATE] TEST ONE PART FIRST REF: PASSIVATION ASTM A380-PASSIVATION AMS 2700/QQ-P-35, PASSIVATION ASTM A967. Precleaning with rags and solvent if required remove any markings, paintor and heavy contaminants. 02 - Dégraissage Acier tout alliage 03 - Décapage et désoxydation des aciers inoxydables selon ASTM A967 et A380 04 - Passivation des aciers inoxydables selon ASTM A967-13, ASTM-A380-13 05 - Emballage et identification des pièces	PASSIVATION CH	5	5	0	0	0	
2	650.6213 Rev.PE1	650.6213 01 - PASSIVATION-DICHROMATE [PASSIVATION BICHROMATE] TEST ONE PART FIRST REF: PASSIVATION ASTM A380-PASSIVATION AMS 2700/QQ-P-35, PASSIVATION ASTM A967. Precleaning with rags and solvent if required remove any markings, paintor and heavy contaminants. 02 - Dégraissage Acier tout alliage 03 - Décapage et désoxydation des aciers inoxydables selon ASTM A967 et A380 04 - Passivation des aciers inoxydables selon ASTM A967-13, ASTM-A380-13 05 - Emballage et identification des pièces	PASSIVATION CH	2	2	0	0	0	
3	650.6210 Rev.PE1	650.6210 01 - PASSIVATION-DICHROMATE [PASSIVATION BICHROMATE] TEST ONE PART FIRST REF: PASSIVATION ASTM A380-PASSIVATION AMS 2700/QQ-P-35, PASSIVATION ASTM A967. Precleaning with rags and solvent if required remove any markings, paintor and heavy contaminants. 02 - Dégraissage Acier tout alliage 03 - Décapage et désoxydation des aciers inoxydables selon ASTM A967 et A380 04 - Passivation des aciers inoxydables selon ASTM A967-13, ASTM-A380-13 05 - Emballage et identification des pièces	PASSIVATION CH	3	3	0	0	0	

RECEIVED
 JUL 23 2020
 DART AEROSPACE LTD.



Certificat de Conformité / Certificate of Compliance



0 2 9 8 6 9 - 1

2455, Rue Halpern | Saint-Laurent | Québec | H4S 1N9
 Tel: 514-335-3666 Fax: 514-335-3868
 www.groupepaltech.com

Bon de Livraison / Packing Slip

029869 - 1

Livré à / Ship to

DART AEROSPACE LTD
 1270 ABERDEEN STREET
 HAWKESBURY, ON, K6A1K7
 CANADA
 Tel.: 613-632-5200 Fax.:

Client / Customer:

DART AEROSPACE LTD
 1270 ABERDEEN STREET
 HAWKESBURY, ON, K6A1K7
 CANADA
 BUYER:

Date expédition Ship date		Créé Par Generated By	Transport / No de Compte Courier / Acc. No.	Bon de commande Client Customer Purchase Order No.				
28-Jul-2020		Ian Wilson		POHB046796				
#Ligne Line#	No. de Série / # Pièce Part Number / Line Item Details Job # / Ref #	Description pièce(s)	CATG. U/M	Comm. /Ordered	Exp/ Shipped	Qté NC/ NC Qty	Qté Scrap/	À venir/ Back Order
4	650.6312 Rev.PG2	650.6312 01-PASSIVATION-DICHROMATE [PASSIVATION BICHROMATE] TEST ONE PART FIRST REF-PASSIVATION ASTM A380-PASSIVATION AMS 2700/QQ-P-35, PASSIVATION ASTM A967. Precleaning with rags and solvant if required remove any markings, paintor and heavy contaminants. 02 - Dégraissage Acier tout alliage 03 - Décapage et désoxydation des aciers inoxydables selon ASTM A967 et A380 04 - Passivation des aciers inoxydables selon ASTM A967-13, ASTM-A380-13 05 - Emballage et identification des pièces	PASSIVATION CH	3	3	0	0	0
5	650.7711 Rev.PF1	650.7711 01-PASSIVATION-DICHROMATE [PASSIVATION BICHROMATE] TEST ONE PART FIRST REF-PASSIVATION ASTM A380-PASSIVATION AMS 2700/QQ-P-35, PASSIVATION ASTM A967. Precleaning with rags and solvant if required remove any markings, paintor and heavy contaminants. 02 - Dégraissage Acier tout alliage 03 - Décapage et désoxydation des aciers inoxydables selon ASTM A967 et A380 04 - Passivation des aciers inoxydables selon ASTM A967-13, ASTM-A380-13 05 - Emballage et identification des pièces	PASSIVATION CH	3	3	0	0	0
6	650.6316 Rev.PG2	650.6316 01-PASSIVATION-DICHROMATE [PASSIVATION BICHROMATE] TEST ONE PART FIRST REF-PASSIVATION ASTM A380-PASSIVATION AMS 2700/QQ-P-35, PASSIVATION ASTM A967. Precleaning with rags and solvant if required remove any markings, paintor and heavy contaminants. 02 - Dégraissage Acier tout alliage 03 - Décapage et désoxydation des aciers inoxydables selon ASTM A967 et A380 04 - Passivation des aciers inoxydables selon ASTM A967-13, ASTM-A380-13 05 - Emballage et identification des pièces	PASSIVATION CH	2	2	0	0	0

DAS
82
9-89


Certificat de Conformité / Certificate of Compliance


0 2 9 8 6 9 - 1

2455, Rue Halpern | Saint-Laurent | Québec | H4S 1N9
 Tel: 514-335-3666 Fax: 514-335-3868
 www.groupaltech.com

Bon de Livraison / Packing Slip
029869 - 1

Livré à / Ship to

DART AEROSPACE LTD
 1270 ABERDEEN STREET
 HAWKESBURY, ON, K6A1K7
 CANADA
 Tel.: 613-632-5200 Fax.:

Client / Customer:

DART AEROSPACE LTD
 1270 ABERDEEN STREET
 HAWKESBURY, ON, K6A1K7
 CANADA
 BUYER:

Date expédition Ship date		Créé Par Generated By	Transport / No de Compte Courier / Acc. No.	Bon de commande Client Customer Purchase Order No.					
28-Jul-2020		Ian Wilson		POHB046796					
#Ligne Line#	No. de Série / # Pièce Part Number / Line Item Details Job # / Ref #	Description pièce(s)	CATG. U/M	Comm. /Ordered	Exp/ Shipped	Qté NC/ NC Qty	Qté Scrap/	À venir/ Back Order	
7	650.6310 Rev.PG2	650.6310 01-PASSIVATION-DICHROMATE [PASSIVATION BICHROMATE] TEST ONE PART FIRST REF-PASSIVATION ASTM A380-PASSIVATION AMS 2700/QQ-P-35, PASSIVATION ASTM A967. Precleaning with rags and solvent if required remove any markings, paintor and heavy contaminants. 02 - Dégraissage Acier tout alliage 03 - Décapage et désoxydation des aciers inoxydables selon ASTM A967 et A380 04 - Passivation des aciers inoxydables selon ASTM A967-13, ASTM-A380-13 05 - Emballage et identification des pièces	PASSIVATION CH	3	3	0	0	0	

RECEIVED

JUL 29 2020

DART AEROSPACE LTD.

Notes Additionnelles / Additional Notes
**Epaisseur réelle
Actual Thickness**
**Inspecteur Qualité
Quality Inspector**
**Réçu par
Received By**

Nous certifions que les pièces énumérées ci-dessus ont été traitées en conformité avec votre commande et vos spécifications et rencontrent les exigences.
 Notre responsabilité financière et légale ne sera pas supérieure au montant de la facture issue.

We hereby certify that the parts listed above have been process in accordance with your purchase order and specifications and are in conformance with your requirements.
 Our financial and legal responsibility will not be higher than the amount of invoice.

CERTIFICATE OF TEST CERTIFICAT D'ESSAIS

Page 01 of 02

Certification Date
12-JUL-2019

CUSTOMER ORDER NUMBER
NUMÉRO DE COMMANDE DU CLIENT

Invoice Number
5722038

47296-J

PART NUMBER/NUMÉRO DE PIÈCE

510522

SOLD TO: METAUX SOLUTIONS INC.
VENDU À:

SHIP TO:
EXPÉDIÉ À:

METAUX SOLUTIONS (RIVE-SUD)

2625 BOUL JACQUES CARTIER EST
LONGUEUIL QC J4N 1L7

2625 BOUL JACQUES CARTIER EST
LONGUEUIL QC J4N 1

Description: 17-4 SOL ANN CF BAR

1 RD X 12' R/L

HEAT: 9SJ0198-G20

ITEM: 510522

ASTM A564

Line Total: 63.6174 LB

Specifications:

AMS 5643 T

AMS 2303 F

*EXCEPT H2S

EN 10204 3.1

ASTM E112

ASTM A564 T630 13

NACE MR0175 15

CORROSION TEST

ASTM E340

ASME SA564 T630 13

ISO 15156-3 155*

ASTM A388

AMS 2315

CHEMICAL ANALYSIS

C	SI	MN	P	S	NI	CR	MO
0.01	0.34	0.64	0.019	0.002	4.7200	15.39	0.15
CU	NBTA	NB	TA				
3.31	0.25	0.24	0.005				

RCPT: R673896

COUNTRY OF ORIGIN : TAIWAN

MECHANICAL PROPERTIES

DESCRIPTION	YLD STR	ULT TEN	%ELONG	%RED IN AREA	HARDNESS BHN
COND A					311
DESCRIPTION	YLD STR	ULT TEN	%ELONG	%RED IN AREA	HARDNESS BHN
DEV: H900 L	KSI 181.0	KSI 200.0	IN 02 IN 15.0	44.0	430

The above data were transcribed from the manufacturer's Certificate of Test after verification for completeness and specification requirements of the information on the certificate. All test results remain on file subject to examination. /Les informations ci-haut-mentionnées sont transcrites du certificat d'essais du manufacturier après vérification de l'état complet des spécifications inscrites sur le certificat. We hereby certify that the material covered by this report will meet the applicable requirements described herein, including any specification forming a part of the description. /Par les présentes, nous certifions que le matériel couvert par ce rapport rencontre les spécifications décrites ci-haut.

The willful recording of false, fictitious, or fraudulent statements in connection with test results may be punishable as a felony under federal statutes. /Les informations fausses, fictives ou frauduleuses en rapport avec le résultat des essais sont punissables en vertu des lois fédérales.

Material did not come in contact with mercury while in our possession. /Par les présentes, nous certifions que le matériel couvert par ce rapport rencontre les spécifications décrites ci-haut.

JAMES MURPHY

MANAGER QUALITY ASSURANCE
GÉRANT DE L'ASSURANCE QUALITÉ

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: AA17-4-H90-6120

PO / BATCH NO.: PO#B843926 / S07997

DATE: 19/08/22

MATERIAL CERT REC'D: 61

THICKNESS ORDERED: 1.000"

QUANTITY RECEIVED: 23.8461

THICKNESS RECEIVED: 1.000"

QUANTITY INSPECTED: 23.8461

SHEET SIZE ORDERED: —

QUANTITY REJECTED: 0

SHEET SIZE RECEIVED: —

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y ☒ N	
CORRECT FINISH	☒ Y N	
CORROSION	Y ☒ N	
CORRECT GRAIN DIRECTION	☒ Y N	
CORRECT MATERIAL PER M-DRAWING	☒ Y N	AMS 5643
CORRECT THICKNESS	☒ Y N	
PHOTO REQUIRED	Y ☒ N	
CORRECT REF # TO LINK CERT	☒ Y N	HT: 95T0198-620
CORRECT MATERIAL IDENTIFICATION	☒ Y N	
CORRECT M# ON THE MATERIAL	☒ Y N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y ☒ N	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y ☒ N	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>61</u> 9 89	SIGNED OFF BY: _____
DATE: <u>AUG 22 2019</u>	DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

METAL SOLUTIONS INC
2625 BOUL JACQUES CARTIER EST
LONGUEUIL, QUEBEC
J4N 1L7 Tel.: 450 641-3330

Shipping Order 22/08/2019

Order : 193719
Reference : POHB043926
Ship : PICK UP / PICK UP

Customer: 6323336

DART AEROSPACE LTD
1270, ABERDEEN STREET
HAWKESBURY, ONTARIO
K6A 1K7

Ship To

Same

Tel.: 1 613 632-3336

Item No.	Description	Qty	Qty. Delivered	B/O Qty
	***** FACTURER E-MAIL ***** SUPER IMPORTANT SUR LE PACKING SLIP INSCRIRE LES HEAT N			
	***** FACTURER E-MAIL ***** SUPER IMPORTANT SUR LE PACKING SLIP INSCRIRE LES HEAT N			
	***** FACTURER E-MAIL ***** SUPER IMPORTANT SUR LE PACKING SLIP INSCRIRE LES HEAT N			
SF1112174	17-4PH FALT 1 X 1.25 COND. H900 1 X 12' R/L ***** HT 92290374 Meteor # 338406	12.33		
SSQ114174	17-4PH SQ. 1.25 COND. H900 1 X 6' HT 104352 Meteor # 338406	6		
SR1174900	17-4PH COND 900 1 DIA. 2 X 12' R/L ***** HT 9sj0198-g20 Meteor # 338406	23.84		
SR34174	17-4PH ROU .750 DIA COND. H900 3 X 12' R/L ***** HT a550 Meteor # 338406	36		
SR138174	17-4PH ROU 1.375 DIA. COND. H900 1 X 12' R/L ***** HT 9sj0046-g1e Meteor # 338406	12.42		
MR3843H	4340 HT .375 DIA. 1 X 12' ***** HT 202736	12		
	LIVRE			

*** Continued on Next Page ***

METCOR INC.

560 BOUL. ARTHUR-SAUVÉ, ST-EUSTACHE, QC, J7R 5A8

Tél.: 450-473-1884

Télécopieur / Fax administration: 450-491-5498

Télécopieur / Fax production: 450-491-6454

Certificat de Conformité Certificate of Compliance

BON DE TRAVAIL order	CHARGEMENT load
338406	1

CLIENT / customer 780

METAL SOLUTIONS

2625 BOUL. JACQUES-CARTIER EST

LONGUEUIL QC J4B 8G8

LIVRÉ À / shipped to:

METAL SOLUTIONS

2625 BOUL. JACQUES-CARTIER EST

LONGUEUIL QC J4B 8G8

1

COMMANDE DU CLIENT customer po	CLASSIFICATION PIECE part classification	MATÉRIEL material	MAÎTRE D'OEUVRE prime contractor	PROGRAM
47297	N/A	17-4PH		
SPECIFICATIONS DU PROCÉDÉ processing specifications				
AGE HARDEN				
CONDITION H 900				
EXIGENCE / requirement SPECIFICATIONS / specified TESTS EXÉCUTÉS / performed RÉSULTATS DE TESTS / results				
HARDNESS		40 - 47 HRC	5	42 - 45 HRC
(907)				
QUANTITÉ quantity	POIDS weight	DESCRIPTION DES PIÈCES parts description		
8	269	PIECES (8) BARS 2 BR X 12" X 1" 3 BR X 12" X .750" 1 BR X 12" X 1.375" 1 BR X 12" X 1.25" 1 BR X 6" X 1.25" 1 NIL		

COMMENTAIRES / comments

APPROUVÉ par / Approved by

DATE: 2019-08-14

Pierre Piché
Chief Inspector



APPROUVÉ
6/14/19

